



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

MAY 16 2003

REPLY TO THE ATTENTION OF:

B-19J

Deborah Roush
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, MO 63103-2833

Re: "General Reevaluation Report with Integrated Draft Programmatic Environmental Impact Statement (DPEIS)" for the East St. Louis and Vicinity, Illinois Ecosystem Restoration and Flood Damage Reduction Project (February 2003), EIS #030072.

Dear Ms. Roush:

U.S. EPA Region 5 is pleased to have been involved with this project. Therefore, we are also pleased to provide comments on the re-evaluation report and draft programmatic environmental impact statement under our authorities contained in the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. We have given the DPEIS an LO (Lack of Objections) rating. The following review identifies a few environmental issues but the DPEIS explains how such issues are to be appropriately addressed in the subsequent NEPA documentation for components of the overall project that will be designed in detail and implemented individually.

Project Background

The study area is approximately 106,000 acres of bottomland (historical floodplain), bluff, and upland watershed areas in Madison and St. Clair Counties in Illinois. The area is within the Metro East/St. Louis area bordering the east bank of the Mississippi River. The area originally contained a rich diversity of natural communities that have been largely replaced or degraded by a diverse array of urban and rural land uses in the bottomland and above the bluffs. Remnant natural areas remain, but are of generally low quality. Three endangered and threatened species

are known to exist within the study area. The area is also rich in archaeological resources, the most notable of which is Cahokia Mounds National Historic Site.

While the American Bottoms, as the lowland part of the study area is called, is protected from Mississippi flooding via a levee, the area has been subject to “interior” flooding from upland runoff. Such flooding is an economic burden in the minority and lower income communities in the Bottoms area. Sediment from upland areas that is carried down the bluffs degrades water quality and remaining habitat areas, and in addition, reduces flood storage capacity in the Bottoms’ floodplain.

Project Overview

The U.S. Army Corps of Engineers (COE), working in collaboration with the National Resources Conservation Service (NRCS), U.S. Environmental Protection Agency (EPA), U.S. Fish & Wildlife Service (FWS), Illinois Department of Natural Resources (IDNR), other state and federal agencies and local governments, has developed a complex and innovative approach to addressing the flooding and ecosystem degradation problems in the study area. The project is intended to benefit area ecosystems, the area’s communities, and the local economy – the three “legs” of the stool of sustainable development. The report under review is a re-evaluation of the previously authorized project for the area, a new problem-solving plan and program, and a draft environmental impact statement (DEIS) for the Recommended Plan.

The planning objectives for the project include: 1) expand natural areas; 2) restore the flood pulse; 3) maintain habitat quality; 4) improve water quality; 5) reduce erosion; 6) improve upland streams; 7) restore floodplain streams; and 8) address the incidental social objectives of reducing flood damages, enhancing outdoor recreation, and protecting cultural resources.

The Recommended Plan is based upon complex and thorough analyses of potential restoration sites located in nine Action Areas. The plan provides for the establishment of habitat areas in the floodplain affecting 4,593 acres, as well as the construction of 155 dry sediment detention basins in upland areas. The Plan is intended to create or improve 1,705 acres of forest habitat, 1,111 acres of prairie habitat, 948 acres of marsh and shrub swamp habitat, 460 acres of lake habitat, and 410 acres of upland forest habitat. It will also involve floodplain stream restoration (10.4 miles), placement of bird houses, perches, overwintering holes and shoreline plantings, and the construction of earthen embankments to contain floodwaters around the habitat areas, and hydraulic control devices.

The dry sediment basins will contain sediment from the upland areas. In addition, the stream stabilization and restoration components are planned to reduce sediment transfer into the lower floodplain area and habitat restoration areas. Stormwater, with reduced sediment loads, will thus be used to substitute for historic riverine overflow from the Mississippi which provided the flood pulses which sustained the floodplain habitats. The total project cost is estimated to be \$211,887,000. The non-federal sponsors for the construction project will be Madison and St. Clair Counties.

A pilot study of the plan for one Action Area (Judy's-Burdicks Branch) is being conducted, and adjustments will be made to the plan components as indicated by the pilot study. No engineering plans have been prepared for any of the Action Areas. Prior to implementation of any approved project, follow-up NEPA compliance documents will be prepared either as a Supplement to the DPEIS or as a series of Environmental Assessments to cover groups of Action Areas. Public involvement will be included during the preparation of future NEPA documentation.

Comments

Habitat Restoration:

The expertise provided through the project collaborators has resulted in analyses of existing conditions, future "without project" conditions, problems and opportunities. Its plan formulation and evaluation components are especially strong with respect to the habitat restoration elements. Habitat restoration in the project area is particularly challenging in view of the complex hydrologic and geologic conditions, and existing and future development. The goal of aiding habitat restoration by simulating pre-development flood pulses in the floodplain is an innovative and experimental approach, which, if proven effective, can be an important model for restoration strategies in many other similar areas along our major rivers.

The success of the habitat restoration is heavily dependent upon effective monitoring and maintenance, especially within the first five years of construction and revegetation. The effectiveness of sediment and erosion control will have a major impact on the viability of the restoration program, so the pilot study and resulting refined plans need to address this concern. The detailed plans for the individual Action Areas should explain the habitat monitoring and maintenance approach in each area, indicating what will be done, by whom and at what cost.

Iterative Approach:

The development of a draft programmatic environmental impact statement and the adaptive assessment approach for the project implementation constitute a good strategy for this innovative project. Having the ability to test the effectiveness of the components of the project and make design and other changes will help the project sponsors and collaborators guarantee the ultimate success of the overall initiative. The Judy's-Burdick pilot study underway is an excellent example. The Preconstruction Engineering and Design (PED) work for individual action areas and the following of the NEPA process for the individual plans or clusters of plans are also important.

The overall approach may prove to be a valuable model for addressing similar environmental degradation and flooding problems associated with other rivers. Therefore a careful and ongoing evaluation of the planning and design process, project implementation and project maintenance has importance beyond this particular initiative. The promulgation of data and other information

about this project as it proceeds is therefore extremely important and some discussion of how this will occur would be a valuable addition to the draft EIS.

Stormwater and Sediment Management:

The overall project has been designed conservatively. The upland sediment basins are expected to perform over the 50-year life of the project, assuming development of most of the agricultural tracts in the upland areas and without assumptions regarding extensive voluntary sediment controls or rigorous regulatory erosion and sediment control in the upper areas of the affected watersheds. This may have been a factor in fairly high project costs for the federal government and the local sponsors for construction and maintenance.

It is possible that, given the build-out of all or most of the agricultural lands in the upper parts of the watershed, unmanaged stormwater and excessive sediment loads could reduce the effectiveness of the project or require additional facilities and maintenance activities, such as the removal of sediment from the lower level basins, the construction of basins to trap sediment before water enters habitat restoration areas, repairs of stream channels, and the construction of larger upland dry sediment basins. It would therefore be wise for all the local government partners to have adopted, prior to construction, state-of-the-art stormwater management regulations, as well as soil erosion and sediment control regulations. Part of this effort would be achieved through effective compliance with the requirements of Phase II of the NPDES program under the Federal Clean Water Act. This should be a standard of local government participation in the project as it moves forward.

As detailed engineering and design for the individual Action Areas are undertaken, the role of regulation of new development with respect to stormwater and soil erosion and sediment control (including compliance with NPDES Phase II) should be evaluated and reported in NEPA documentation for these areas. In addition, the role of voluntary participation in installing appropriate best management practices should also be addressed. The Judy's-Burdick Branch pilot project should be looked to as one way of assessing the effectiveness of the conservative approach being considered, as compared with additional stormwater and sediment controls applied via regulation and voluntary means in the upland areas.

Natural Landscaping, Bio-Technical Erosion Control, and Bank Stabilization:

Use of native vegetation and bio-technical measures for managing stormwater and stabilizing banks of channels and streams should be used wherever practicable given the potential habitat, water quality, and maintenance benefits. Use of such techniques may be infeasible in areas with high flows and velocities, however. The development of the detailed engineering and design for streams and channels should maximize the use of these techniques wherever they will function properly. The individual NEPA documentation on plans for Action Areas should assess this option (environmental benefits, installation costs, maintenance costs, etc.) and make appropriate recommendations in the final plans for the Action Areas.

Summary

The proposed project has unusual strength because of the multi-agency, multi-disciplinary approach taken from the beginning. The project will be looked to as a pilot for solving similar problems in other areas along major rivers where habitat restoration, flood control, and erosion and sediment control need to be addressed simultaneously. U.S. EPA looks forward to reviewing subsequent detailed plans for the various Action Areas as they are formulated based upon initial experience with the techniques being used in the pilot area.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kenneth A. Westlake", written in a cursive style.

Kenneth A. Westlake
Chief, Environmental Planning and Evaluation Branch